

tiveness of 24-hours Holter and up to 30 days ELR, each with different diagnostic yield, compliance, and costs in patients with syncope in Colombia. **METHODS:** An analytical decision tree model was constructed including diagnostic yield, patient compliance, mortality rate, QALYs, associated costs to diagnosis and not having a diagnosis. Third party payer perspective, five year horizon and 3.5% discount rate for utilities and costs were assumed. Patient pathways and model inputs were ascertained from doctor interviews and literature search. Average market prices of US\$175 for 24-hours Holter and US\$627 for ELR were used. Micro-costing for avoided emergency visits and hospitalizations was done via Colombian key opinion leader interviews and official tariffs for costs of not having a diagnosis along five years. Uncertainty adjustments were done when judged appropriate. Incremental Cost Effectiveness ratio (ICER) was done, incorporating deterministic and probabilistic sensitivity analyses. **RESULTS:** 24-Holter strategy had 19% diagnosis yield compared to 63% for ELR. Over a five year horizon, ELR strategy obtained more QALYs than 24-Holter (2.62 vs. 2.18), at lower cost, been dominant over 24-hours Holter with US\$2,165.6 incremental savings per incremental QALY. Sensitivity analysis showed the result to be particularly sensitive to disease and untreated syncope utilities and cost. The probabilistic sensitivity analysis showed a robust model with 95% confidence intervals of 1.83–2.57 QALYs for 24-hours Holter and 2.21–3.04 QALYs for ELR. **CONCLUSIONS:** Over a 5 year horizon, the ELR with greater utility (QALY) to lower costs, as demonstrated through greater incremental savings per QALY, was dominant over 24-Holter. The superior results of the ELR are attributable in part to the greater diagnostic yield and higher patient compliance.

PMD41

THE COST-EFFECTIVENESS OF DRUG-ELUTING STENTS VERSUS BARE METAL STENTS IN TAIWAN

Fang N¹, Yao M², Tseng T¹

¹Tunghai University, Taichung city, Taiwan, ²National Chia Tung University, Hsinchu county, Taiwan

OBJECTIVES: Drug-eluting stents (DESs) have been shown to reduce in-stent restenosis and target vessel revascularization (TVR) in several large clinical trials. We conducted this study to explore the differences in the cost and clinical outcome of DESs and bare metal stents (BMSs). **METHODS:** We retrospectively analyzed the clinical data and costs of patients with stable angina treated with coronary stents in 2012 at a medical center in Taiwan. **RESULTS:** We enrolled 245 patients treated with DESs and 194 patients treated with BMSs. The use of DESs is a lower rate of TVR compared with that with BMSs (11% vs. 20%, $p = 0.015$). Compared with the DES group, the overall costs were significantly higher in the BMS group (NT\$237727.0±89714.9 vs. NT\$187017.3±129713.5, $p < 0.001$). **CONCLUSIONS:** The use of DESs reduces the rate of TVR at 2 years after intervention, but is probably not cost-effective compared with BMSs in patient.

PMD42

ECONOMIC EVALUATION OF PACLITAXEL-ELUTING BALLOON CATHETER FOR PERCUTANEOUS TRANSLUMINAL ANGIOPLASTY (PTA) IN MEXICAN POPULATION WITH PERIPHERAL ARTERIAL OBSTRUCTIVE DISEASE

Ceballos R¹, Orozco JJ², Soto H³, Carmona M⁴, Escobar Juárez Y⁴

¹Medtronic, Mexico, ²Medtronic, Medellín, Colombia, ³Universidad Autónoma Metropolitana, México D.F., Mexico, ⁴HS Estudios Farmacoeconómicos, Mexico City, Mexico

OBJECTIVES: To perform a full economic evaluation through a cost-effectiveness analysis of the use of paclitaxel-eluting balloon catheter (IN.PACT™ Admiral) in comparison with balloon catheter, for PTA in the treatment of peripheral obstructive artery diseases in Mexican population, from the perspective of the public health care system in Mexico. **METHODS:** The measure of effectiveness considered was decrease in the rate of target lesion revascularization (TLR). Information about efficacy and safety of the intervention was obtained from a systematic review. Direct medical costs were considered (cost of devices as well as the procedure). An incremental cost-effectiveness analysis was performed with a horizon of two years. To demonstrate the robustness of the model, univariate sensitivity analysis and probabilistic sensitivity analysis were executed using Monte Carlo simulations. **RESULTS:** Paclitaxel-eluting balloon catheter for PTA (IN.PACT™ Admiral) demonstrated good efficacy and safety producing a significant reduction in TLR at six months, which was maintained up to 24 months (estimated rate 14.4%), evaluated angiographically. This was significantly better than that obtained with conventional balloon angioplasty (estimated rate 40.3%) in the treatment of restenosis. Total average costs were \$102,299.00 and \$115,652.00 respectively. Therefore the incremental cost-effectiveness ratio (ICER) obtained showed that the paclitaxel-eluting balloon catheter for PTA (IN.PACT™ Admiral) is a dominant option. Clinical benefits were clearly demonstrated by the improvement in the ankle-arm index and Rutherford category. **CONCLUSIONS:** Paclitaxel-eluting balloon catheter for PTA (IN.PACT™ Admiral) proved to be more effective and less costly than the standard of care in the treatment of peripheral obstructive arterial disease, for Mexican public health care institutions.

PMD43

COST-ANALYSIS OF MEDIHONEY CALCIUM ALGINATE VERSUS AQUACEL AG DRESSING FOR CHRONIC LEG ULCERS TREATMENT UNDER THE BRAZILIAN PUBLIC PAYER PERSPECTIVE

Tolentino AC¹, Turkos M², Dick S²

¹Self, Rio de Janeiro, Brazil, ²Derma Sciences, Princeton, NJ, USA

OBJECTIVES: To develop cost-analysis of MEDIHONEY CALCIUM ALGINATE (MEDIHONEY) versus ACQUACEL AG (AG) dressings for chronic-wound treatment in adults, from perspective of Brazilian public payers. **METHODS:** Data from Brazilian Hospital Information System from October 2013 to September 2014 was used to define the annual number of hospital admissions due to chronic wounds (only non-surgical records with I97.909 ICD-10 code included). The model assumed that patients are discharged at the time their wounds heal. No critically ill patients in ICUs were included. Only patients above 20 years old were included. Unit cost

obtained from Brazilian official price lists. **RESULTS:** 95,688 hospitalizations were identified with total length of stay (LOS) of 336,939 days; deaths and mortality rates were 866 and 0.91 respectively.1 The model estimated costs for the inpatient period assuming one dressing change every 3 days for MEDIHONEY and AG, considering in both cases a similar size. Cost per dressing change was estimated as USD35.80 and US\$1.85 for AG and MEDIHONEY, with mean healing time of 53 and 31 days, respectively.2 Overall treatment costs were USD4,020,805.30 and USD3,577,169.00 according to the LOS and USD632.46 and USD329.12 according to MHT/patient for AG and MEDIHONEY, respectively. MEDIHONEY-related incremental costs were USD31,492,834 indicating a cost-saving profile. Adopting MEDIHONEY as wound management protocol would save USD29,025,998 for the 2013/2014-cohort. Clinical benefits for use of MEDIHONEY CALCIUM ALGINATE over AG include decreased risk of hypersensitivity to compounds, MEDIHONEY treatment is appropriate throughout wound healing process and MEDIHONEY does not induce microbial resistance.3 **CONCLUSIONS:** MEDIHONEY dressing demonstrates cost-effectiveness when compared to AG dressings. These results reinforce the need for evidence-based decision making and rational resource allocation; in addition to further studies including clinical outcomes data.

PMD44

COST EFFECTIVENESS OF SACRAL NEUROSTIMULATION FOR OVERACTIVE BLADDER IN MEXICO

Soto H¹, Sanchez K², Escobar Juárez Y², Constanzo A², Ceballos R³

¹Universidad Autónoma Metropolitana, México D.F., Mexico, ²HS Estudios Farmacoeconómicos, Mexico City, Mexico, ³Medtronic, Mexico, Mexico

OBJECTIVES: The objective is to develop a full economic evaluation of the cost effectiveness of using sacral neurostimulation versus botulinum toxin type A and augmentation cystoplasty in the treatment of overactive bladder in Mexico, from the perspective of the public health sector. **METHODS:** A systematic literature review was conducted to identify articles to extract data on safety and efficacy of: sacral neurostimulation, botulinum toxin type A, and augmentation cystoplasty. A cost-effectiveness analysis was performed using a Markov model with a time horizon of 1 to 5 years. The effectiveness was measured as continence years and quality-adjusted life year (QALY). Only direct medical costs were considered, such as: medicine, surgery, devices, adverse events, days of hospitalization and laboratory studies; an analysis of incremental cost-effectiveness ratio (ICER) and incremental cost-utility (ICU) was performed. To test the model and demonstrate the robustness, a probabilistic sensitivity analysis was performed, using Monte Carlo simulations. **RESULTS:** Sacral neurostimulation showed better efficacy with 3.65 continence years and 3.27 QALY's with a cost of \$279,538.11. The ICER over botulinum toxin A was 69,917.92, less than one time the Mexican GDP per capita, for the botulinum toxin the cost was 191,143.86 with 2.39 continence years and 2.13 QALY's; for augmentation cystoplasty the cost was \$205,049.02 with 3.19 continence years and 2.85 QALY's. The probabilistic sensitivity analysis demonstrated that sacral neurostimulation is a cost-effective alternative, despite the modification of all the model's variables. **CONCLUSIONS:** Sacral neurostimulation is a very cost-effective alternative for patients in the public health care system in Mexico, being ICU and ICER less than one time the Mexican GDP per capita.

PMD45

CARDIOVERTER-DEFIBRILLATOR: THE CHOICE BETWEEN THE NEED AND LIMITED RESOURCES

Gurtskaya G, Kulkhan T, Sasykova A, Issatayeva N

Republican Center for Health Development, Astana, Kazakhstan

OBJECTIVES: The severity of the effect in reducing the risk of sudden cardiac death has a significant positive impact on the forecast as a whole and significantly reduces overall mortality rate among different categories of cardiology patients. Meanwhile, it imposes a significant burden on the healthcare budget of the Republic of Kazakhstan. Due to the fact that the CD's implantation is an expensive method of treatment, the authors conducted a review of existing studies on the cost-effectiveness of the CD in the application of additional functions - MRI-compatible and home monitoring function. **METHODS:** The literature review of the efficacy and safety «MRI-compatible CD with home monitoring» were conducted on the database of the Cochrane Library, a database of bibliographic review on the effectiveness of medical intervention (DARE), database reviews of health technology assessment (HTA), PubMed, CADTH, NICE, Clinical Trials and TripDatabase. **RESULTS:** Search results revealed 522 publications, and from this number 3 studies were selected for the final analysis. The remaining works were excluded due to non-compliance to the PICOS' criteria. According to the data from representatives Biotronik and Medtronic in Kazakhstan the CD's cost without MRI-compatible, completed with electrodes in Kazakhstan ranges \$18,000-19,000. **CONCLUSIONS:** Application in clinical practice, MRI-compatible CD with home monitoring has significant advantages - the almost complete absence of the risk of adverse events, the possibility of more frequent MRI as one of the main methods of diagnosis and early detection of various pathological conditions, the avoidance of unnecessary visits to patients without necessary evidence, revealing significant changes in the health status of patients in the constant monitoring; has a relatively small increase in the cost of a complete set of MRI-compatible CD with home monitoring in comparing with the cost of a set of CD without this function, an average of 33%.

PMD46

COST-UTILITY OF REPETITIVE TRANSCRANIAL MAGNETIC STIMULATION VERSUS ANTIDEPRESSANT THERAPY FOR TREATMENT-RESISTANT DEPRESSION

Gordon LG, Nguyen K

Griffith University, Logan, Australia

OBJECTIVES: Major depressive disorder (MDD) is a debilitating disease that significantly decreases quality of life. Repetitive Transcranial Magnetic Stimulation (rTMS) therapy is a safe, non-invasive, physical treatment for major depressive disorder. We evaluated the cost-effectiveness of rTMS compared with third-line antidepressant